

Claims

1. Method for coding a presentation description of audio signals, comprising:

5 generating a parametric description of a sound source;

linking the parametric description of said sound source with the audio signals of said sound source;
characterized by

10 describing the wideness of a non-point sound source (LSS) by means of said parametric description (ND1, ND2, ND3); and

15 defining a presentation of said non-point sound source by multiple decorrelated point sound sources (S1, S2, S3).

2. Method according to claim 1, wherein separate sound sources are coded as separate audio objects and the arrangement of the sound sources in a sound scene is de-

20 scribed by a scene description having first nodes corresponding to the separate audio objects and second nodes describing the presentation of the audio objects and wherein a second node describes the wideness of a non-point sound source and defines the presentation of said non-point sound source by multiple decorrelated point sound sources.

30 3. Method according to claim 1 or 2, wherein one of several decorrelation algorithms (DIS) and/or the strength of the decorrelation (DES) of said multiple decorrelated point sound sources is assigned to said non-point sound source.

35 4. Method according to any of claims 1 to 3, wherein a shape approximating said non-point sound source is defined.

5. Method according to claim 4, wherein the size of the defined shape is given by parameters in a 3D coordinate system.

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6. Method according to claim 5, wherein the size of the defined shape is given by an opening-angle having a vertical and a horizontal component.

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7. Method according to any of claims 4 to 6, wherein a complex shaped non-point sound source is divided into several shapes (A₁, A₂, A₃) each approximating a part of said non-point sound source.

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8. Method for decoding a presentation description of audio signals, comprising:

receiving audio signals corresponding to a sound source linked with a parametric description of said sound source;

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characterized by

evaluating the parametric description (ND₁, ND₂, ND₃) of said sound source for determining the wideness of a non-point sound source (LSS); and

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assigning multiple decorrelated point sound sources (S₁, S₂, S₃) at different positions to said non-point sound source.

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9. Method according to claim 8, wherein audio objects representing separate sound sources are separately decoded and a single soundtrack is composed from the decoded audio objects using a scene description having first nodes corresponding to the separate audio objects and second nodes describing the processing of the audio objects, and wherein a second node describes the wideness of a non-point sound source and defines the presentation of said non-point sound source by

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means of said multiple decorrelated point sound sources emitting decorrelated signals.

10. Method according to claim 8 or 9, wherein one of
5 different decorrelation algorithms (DIS) is applied to the audio signal of said non-point sound source and/or the strength of the decorrelation (DES) of said multiple decorrelated point sound sources is selected depending on corresponding indications assigned to
10 said non-point sound source.
11. Method according to any of claims 8 to 10, wherein
15 said multiple decorrelated point sound sources are arranged in a shape approximating said non-point sound source.
12. Method according to claim 11, wherein the size of the defined shape is determined using parameters in a
20 3D coordinate system.
13. Method according to claim 12, wherein the size of the defined shape is determined using an opening-angle having a vertical and a horizontal component.
- 25 14. Method according to any of claims 11 to 13, wherein several shapes (A₁, A₂, A₃) are combined to generate an approximation of a complex shaped non-point sound source.
- 30 15. Apparatus for performing a method according to any of claims 1 to 14.